



## ecology and environment, inc.

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International Specialists in the Environment

EPA Region 5 Records Ctr.



334401

October 6, 1994

Ms. Gail Nabasny  
Deputy Project officer  
U.S. Environmental Protection Agency  
Emergency Response Section  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Re: Clark Oil Refinery  
Blue Island, Cook County, Illinois  
TDD: T05-9410-119  
PAN: EIL0844BBA

Dear Ms. Nabasny:

The Ecology and Environment, Inc. (E & E), Technical Assistance Team (TAT) was tasked by the United States Environmental Protection Agency (U.S. EPA) under Technical Direction Document (TDD) T05-9408-007 to prepare and implement a Health and Safety Plan, provide air monitoring, and to assist the U.S. EPA On-scene Coordinator (OSC) in the investigation of an oil spill at the Clark Oil Refinery (Clark). Due to the beginning of a new option period in the TAT contract, TDD T05-9410-119 was tasked to TAT to complete the final report for this project.

The Clark site, located at Kedzie and 127th Street in Blue Island, Illinois, reported an oil spill on the Calumet-Sag Channel to the National Response Center (NRC) at approximately 0430 hours on August 11, 1994. Clark reported 100 gallons as the estimated amount of the oil spill. U.S. EPA was contacted about the spill by NRC on the morning of August 11, 1994.

U.S. EPA contacted TAT at approximately 1118 hours on August 11, 1994. OSC Len Zintak and OSC Karen Vendl had proceeded to the site at approximately 0900 hours for briefings from Clark representatives. Representatives from other agencies that responded to the spill included: Rob Sulski (Illinois EPA), Giedraitis Allen and Sharon Sopcak-Phelan (Metropolitan Water Reclamation District [MWRD] of Greater Chicago), Commanding Officer [CO] Andrew Legge, and Tim McClod and Bob Hawkins (U.S. Coast Guard [USCG], Burr Ridge). Representatives from Clark who were on site included: John Deaton, Operations Manager; Brad Burmaster, Refinery Manager; Elva Carusiello, Environmental Engineer; David Beener, Environmental Engineer; Jeff Garbois, Safety Manager; and Dan Gilbert, Human Resources Manager.

According to Clark representatives, strong rains had caused a large amount of water to overburden the facility's oil/water

separator (weir junction box). The weir junction box serves as the common receptacle for process water and storm water runoff. The weir junction box is utilized to separate oil/water mixtures for oil recovery and water treatment. After water treatment, the remaining water is discharged into a 6-foot-diameter sewer drain which leads to an outfall at the Calumet-Sag Channel. The facility's fire brigade had responded immediately upon discovery of the spill and placed booms near and around the outfall, as well as a containment boom downstream at a boat launch facility in Alsip, a township bordering Blue Island, Illinois.

Clark also contacted its response contractor, Clean Harbors, at approximately 0700 hours on August 11, 1994. Clean Harbors arrived at the boat launch at approximately 0800 hours with limited equipment (one boat, a 150-foot-long containment boom, one trailer, sorbent booms, sorbent pads, and other miscellaneous items). At approximately 1100 hours, Clean Harbors had one containment boom in place across the channel and a sorbent boom was placed along the north bank of the channel where the boat ramp is located. Clean Harbors had difficulty dragging the 150-foot containment boom from the trailer to the channel, and maneuvering the boom on the channel, given the limited equipment available.

According to Bob Hawkins, a representative from USCG, the north-south winds had caused the dissipation of the majority of the oil towards the south bank, which was mostly rocky, leaving only the oil sheens on the water surface to be recovered. The opportunity to recover oil was lost during the first six hours after the spill occurred due to the winds. Hawkins estimated the spill volume to be between 2,000 and 3,000 gallons. A flyover in an MWRD helicopter by OSC Zintak and MWRD representative Allen confirmed the presence of oil sheens, except for a slug of oil in the center of the channel, in the area of the Harlem bridge, downstream of Clark Oil's outfall. USCG CO Legge planned to re-open the channel traffic once the oil slug identified in the helicopter flyover was recovered, and only oil sheens remained.

Clark contacted its alternative response contractor, Heritage Environmental (Heritage), as an additional resource for the cleanup. Heritage arrived on site at approximately 1700 hours on August 11, 1994. At approximately 1700 hours, Clean Harbors began pulling out all booms to clear the way for traffic. Sorbent booms downstream of the Harlem bridge were dragged by two Heritage boats, pulling in debris and oil sheens toward the boat launch, where they were eventually cleaned by Clark contractors. At approximately 1727 hours, the OSC and USCG inspected the channel by boat before CO Legge announced the reopening of the channel to boat traffic at a reduced speed.

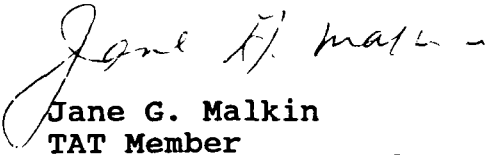
Approximately 1,500 gallons of an oil/water mixture recovered with the Clean Harbors' vacuum truck were transported to the Clark facility for oil recovery. At approximately 2000 hours, the channel was completely reopened to traffic. The OSC and TAT

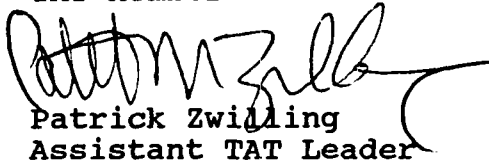
departed the site at 2030 hours.

On August 12, 1994, TAT and the OSC inspected the site and the condition of the channel. No evidence of large oil patches was sighted and only oil sheens were evident from the oil spill. No further activities from U.S. EPA and TAT were conducted for the site.

If you have any question regarding this report, please do not hesitate to contact our office.

Sincerely,

  
Jane G. Malkin  
TAT Member

  
Patrick Zwilling  
Assistant TAT Leader

Attachment - Site Photographs

cc: Len Zintak, OSC, U.S. EPA



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 1 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/11/94

TIME: 1500 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:

Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: Overview of the Alsip boat launch, near the response.  
Photographed during a flyover.

DATE: 8/11/94

TIME: 1505 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:

Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: Overview of Clark Oil Refinery and the Calumet-Sag  
Channel.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 2 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/11/94

TIME: 1510 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: Close-up of Clark Oil Refinery's property boundary  
which is directly adjacent to the Calumet-Sag Channel.

DATE: 8/11/94

TIME: 1516 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: An oil sheen was observed on the Calumet-Sag Channel.  
Oil appeared to be emanating from the Clark outfall.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 3 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/11/94

TIME: 1520 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: Sorbent booms were placed surrounding the outfall  
originating on Clark's property.

DATE: 8/11/94

TIME: 1522

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: View of the containment boom positioned by Clean  
Harbor at the boat launch.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 4 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/11/94

TIME: 1525 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Len Zintak

SAMPLE ID  
(if applicable):



DESCRIPTION: Oil sheen flowing downstream on Calumet-Sag Channel.

DATE: 8/11/94

TIME: 1646 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Jane G. Malkin

SAMPLE ID  
(if applicable):



DESCRIPTION: Containment booms and sorbent booms positioned at the Metropolitan Water Treatment Plant intake, located downstream, at 127th Street and Harlem Avenue.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 5 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/11/94

TIME: 1847 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:

Low 70's

slight wind

PHOTOGRAPHED BY:  
Jane G. Malkin

SAMPLE ID  
(if applicable):



DESCRIPTION: Crew removed containment and absorbent booms from the  
channel. All booms were dragged by boat prior to removing them  
from the channel. Note: USCG tugboat in background.

DATE: 8/11/94

TIME: 1850 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:

Low 70's

slight wind

PHOTOGRAPHED BY:  
Jane G. Malkin

SAMPLE ID  
(if applicable):



DESCRIPTION: The channel was inspected for the presence of any  
recoverable oil before the it was opened to traffic.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 6 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/11/94

TIME: 1850 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Jane G. Malkin

SAMPLE ID  
(if applicable):



DESCRIPTION: Booms and pads utilized for oil recovery and  
containment awaiting disposal.

DATE: 8/11/94

TIME: 1900 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's  
slight wind

PHOTOGRAPHED BY:  
Jane G. Malkin

SAMPLE ID  
(if applicable):



DESCRIPTION: Debris collected by dragging the booms across the  
water surface.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Clark Oil Refinery

PAGE 7 OF 7

U.S.EPA ID: N/A

TDD: T05-9410-119

PAN: EIL0844BBA

DATE: 8/12/94

TIME: 0910 hr

DIRECTION OF  
PHOTOGRAPH:

WEATHER  
CONDITIONS:  
Low 70's

PHOTOGRAPHED BY:  
Jane G. Malkin

SAMPLE ID  
(if applicable):



DESCRIPTION: Heritage Environmental decontaminated the boat ramp  
utilizing a pressure washer.